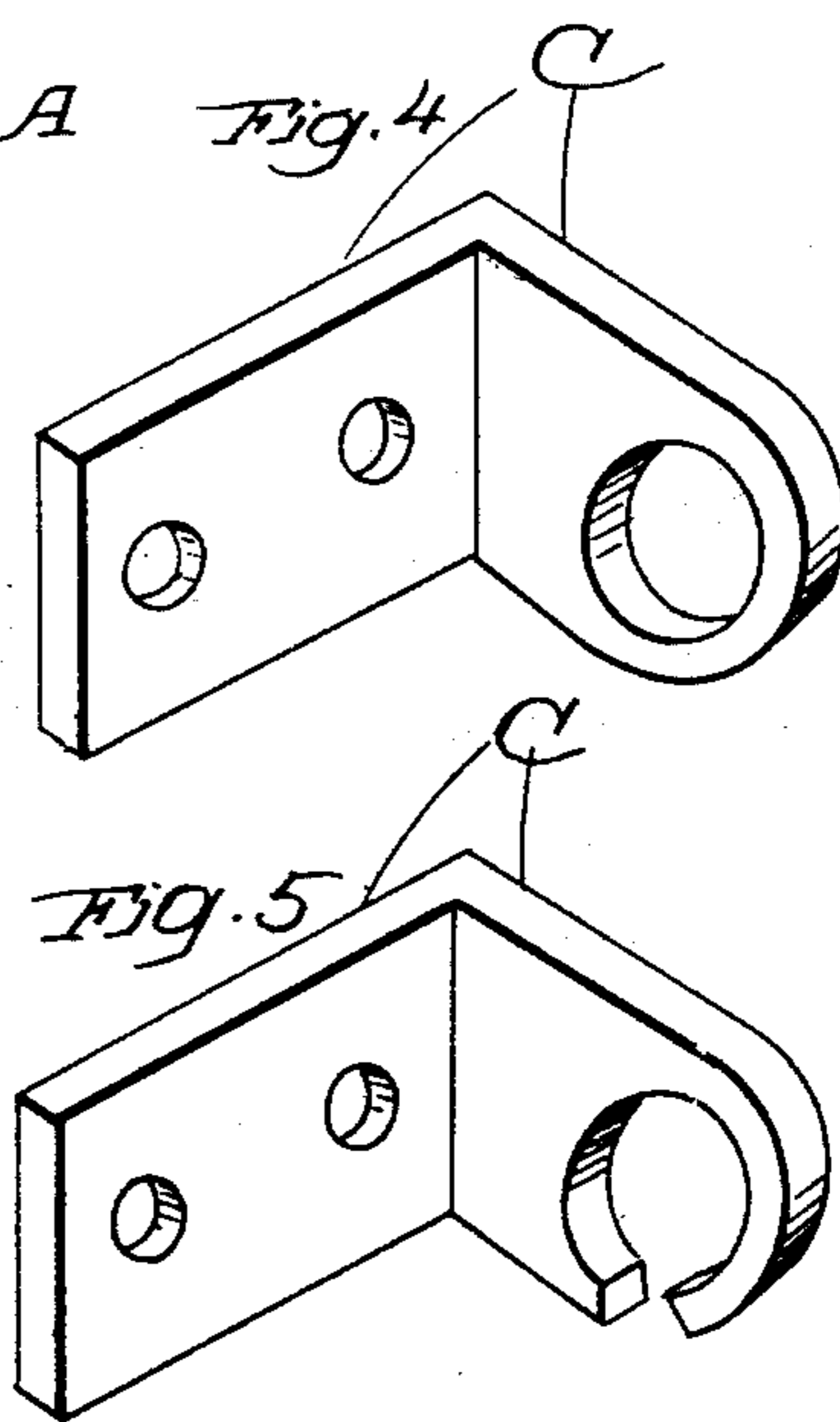
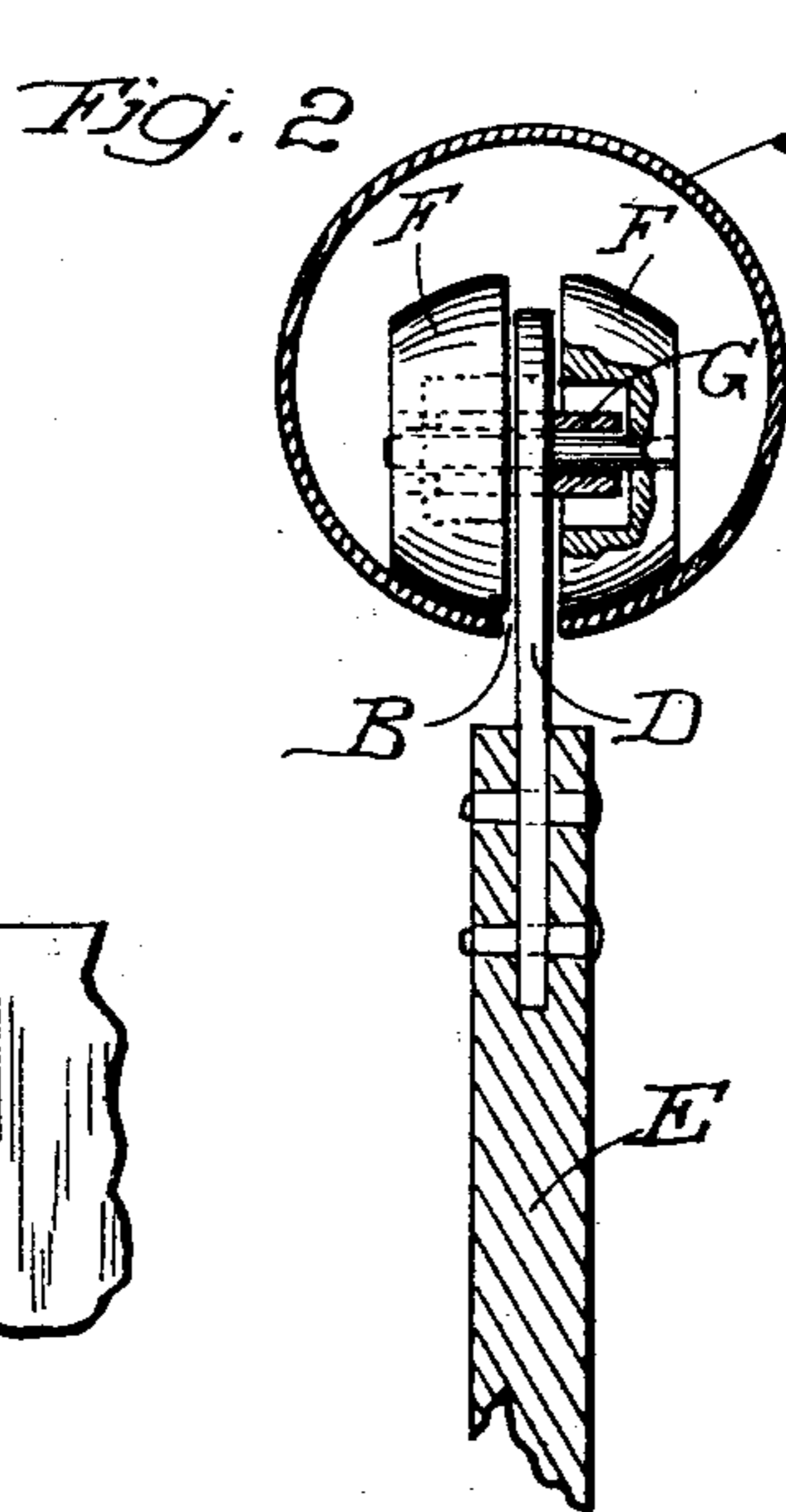
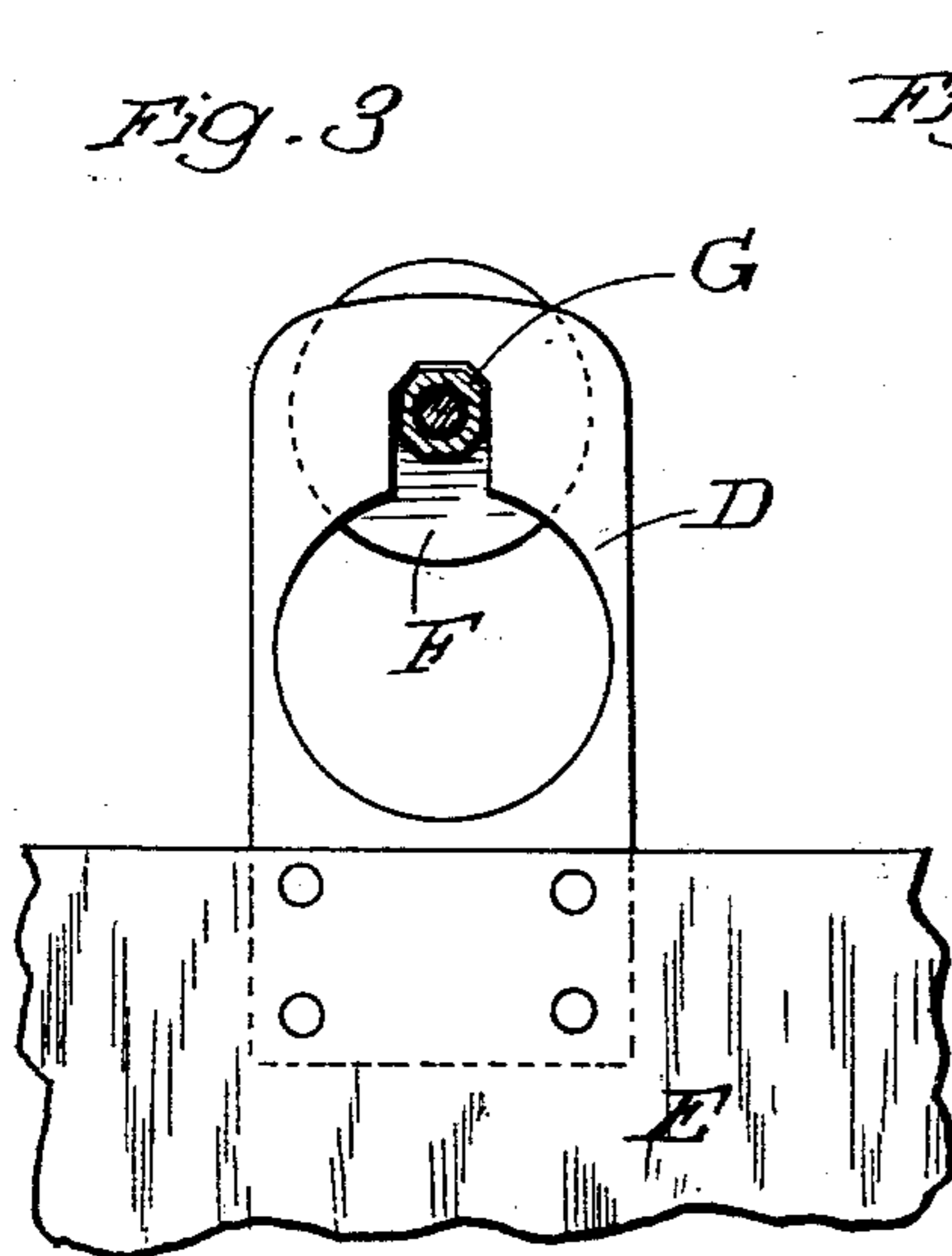
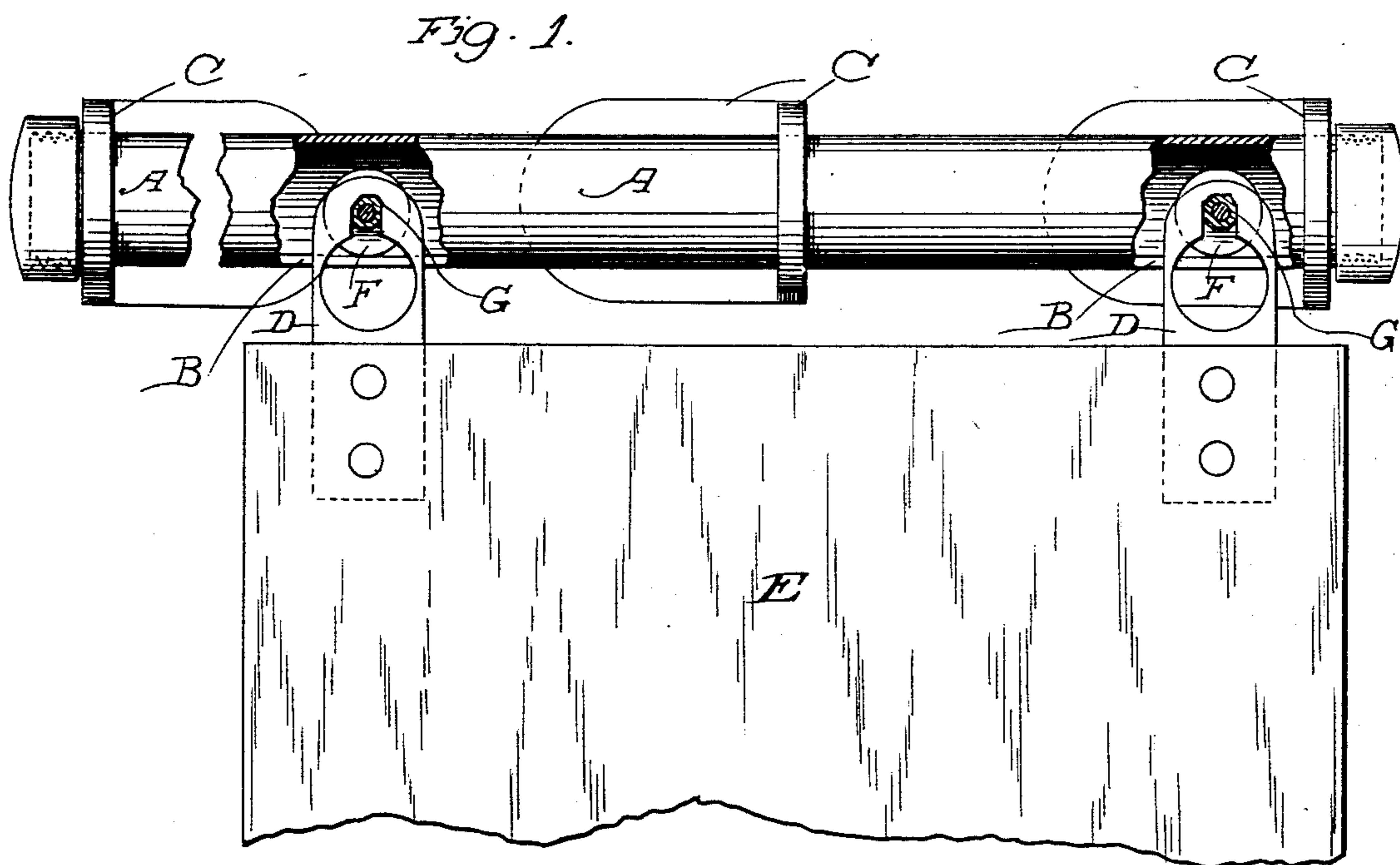


(No Model.)

G. E. WITT.
TRACK OR CARRIER FOR DOORS, &c.

No. 520,199.

Patented May 22, 1894.



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UNITED STATES PATENT OFFICE.

GEORGE E. WITT, OF FRESNO, CALIFORNIA.

TRACK OR CARRIER FOR DOORS, &c.

SPECIFICATION forming part of Letters Patent No. 520,199, dated May 22, 1894.

Application filed January 24, 1894. Serial No. 497,909. (No model.)

To all whom it may concern:

Be it known that I, GEORGE E. WITT, a citizen of the United States, residing at Fresno, Fresno county, State of California, have invented an Improvement in Tracks and Carriers for Doors and other Purposes; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to a device for suspending sliding or traveling doors or carriers, and for other similar purposes.

It consists in certain details of construction which will be more fully explained by reference to the accompanying drawings, in which—

Figure 1 is a front view of my invention, a portion being broken away showing the construction. Fig. 2 is a cross section of the tube showing the pulley and hanger. Fig. 3 shows the hanger with a transverse section of the sleeve. Fig. 4 is a view of one of the end brackets. Fig. 5 is a view of the intermediate bracket.

The object of my invention is to provide a device for suspending any traveler which is intended to run from one point to another. It is applicable to the suspension of car and other sliding doors, and also for transporting hay in barns, and for other similar purposes.

In the present case I have shown my device applied to sliding doors, but it will be manifest that the same arrangement will sustain any suspended traveler and allow it to move in the same manner.

A is the tube made of any suitable or desired diameter. It may be made of gas pipe of suitable size, and it has a slot or channel B made in the lower side. This tube is suitably supported by brackets C, the end ones being closed, and the tube may be secured in place by caps or nuts screwing upon these ends and outside of the end brackets, so that by removing a cap the tube may be slid back and the interior rollers removed. Intermediate brackets, through or beyond which the traveler is to pass, are slotted or channeled upon the lower side so as to allow the traveler hangers to pass them. These intermediate brackets extend far enough around the tubes so as to give it the proper support at a suitable number of points, without interfering with the free movement of the hangers. In case of a sliding door, two end brackets,

and one or more intermediate slotted ones will be sufficient, but if the traveler is to move a considerable distance, the supporting device will be correspondingly extended.

D D are the hangers to which the door or other suspended part E is secured. These hangers are in the form of plates of sufficient thickness to give the required strength and at the same time to pass freely up through the slot B in the tube. Within the tube the ends of these plates are supported upon rollers F which travel within the tube and thus suspend the hangers and the load which they carry. These rollers are made in the form of flattened spherical segments having a sufficient space between their inner faces to admit the hanger plates, and a central axle uniting them upon which the hanger plates rest. The outer faces of these segments are flattened so as not to form contact with the inner sides of the tube and the edges where they approach the sides of the slot B are also made flat so that they do not travel upon this slot. The curvature between this straight portion and the outer faces, is essentially the same as the inner curvature of the tube, so that these rollers travel upon a curved surface which corresponds with the inner surface of the tube, and they thus run easily.

In the construction of the hanger plates, I have shown them with the upper part which is within the tube, having a slot made in them which will fit over the axles of the rollers, and this slot opens into a circular hole of such diameter that the rollers by being slipped down into this opening can be easily removed and replaced, the whole opening resembling a key-hole.

In order to provide a sufficient bearing for the hangers so that the weight will not cause them to wear too rapidly upon the axles of the rollers upon which they rest, I have shown these rollers chambered on the inner sides and adapted to receive sleeves G which fit loosely upon the axis, and form a bearing of considerable length which will wear very slowly. The outer sides of the sleeves are flattened or made rectangular, so that the hanger slipping down over the flattened sides, holds the sleeves in the slot without turning, and the shafts of the rollers will turn inside the sleeves. The tubular support A fits loosely in the support-

ing brackets C so that it may be easily rotated, and the door or other device which is supported from the hanger may easily be turned from one side to the other as desired, because
5 the tube will rotate by reason of the pressure of the hanger upon the side of the slot through which it passes, thus if it be a door which is intended to slide backward and forward for the purpose of opening or closing, this door
10 may also be turned up into a horizontal or other angle, by lifting up its lower edge and the tubular support will turn around in the supporting brackets to allow this motion of the door. The door may thus be turned up
15 so as to form an awning or shelter over the door opening, if desired, and in the same manner a hay fork or other carrier suspended from this device may be allowed to swing more or less from side to side without binding or cramping the movement of the rollers
20 or hanger plates.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

25 1. The combination, with a suspended traveler having hangers provided with rollers, of a tube adapted to be turned axially and having its lower surface slotted to receive said

hangers, whereby said traveler may be caused to travel in the direction of the length of the
30 tube and may be turned in planes transverse to such movement.

2. A track or carrier consisting of a slotted tube loosely mounted so that it may be turned axially, hangers extending through the slot
35 of the tube and adapted to support the weight to be carried, said hangers having a slot for the reception of the axis of the rollers, and an enlarged opening below and communicating with said slot and having a diameter suf-
40 ficient to permit the removal of the rollers through them.

3. A track or carrier consisting of a slotted tube with hanger plates extending through the slot and rollers traveling within the tube
45 from which the hanger plates are suspended, supporting brackets through which the tubular support passes and within which it turns loosely, whereby the tube and its support may
50 be turned from side to side as described.

In witness whereof I have hereunto set my hand.

GEORGE E. WITT.

Witnesses:

GEO. H. STRONG,
S. H. NOURSE.